



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,173	12/01/2003	Christian Hamon	58779.000036	'9380

21967 7590 03/10/2006

HUNTON & WILLIAMS LLP  
INTELLECTUAL PROPERTY DEPARTMENT  
1900 K STREET, N.W.  
SUITE 1200  
WASHINGTON, DC 20006-1109

EXAMINER
----------

JOHNSON, EDWARD M

ART UNIT	PAPER NUMBER
----------	--------------

1754

DATE MAILED: 03/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/724,173

Applicant(s)

HAMON ET AL.

Examiner

Edward M. Johnson

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 5/26/4.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 09/582,622.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/04.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d) or (f). The certified copy has been filed in parent Application No. 09/582,622, filed on 3/5/01.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 depends from itself and is unclear as to whether a previously mentioned agglomeration binder is referred to. Examiner suggests replacing "wherein agglomeration binder" with --wherein the agglomeration binder--.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1754

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Ward US 4,002,575.

Regarding claim 1, Ward '575 discloses catalyst comprising zeolite and ferrierite (see paragraph bridging columns 5-6), 1-20% iron (column 6, lines 29-31).

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Farnos et al. US 5,589,147.

Regarding claim 1 Farnos '147 discloses a catalyst for reduction of NOx, including nitrous oxide (abstract and column 1, lines 33-35) comprising ferrierite, zeolite (see column 6, lines 58-63), and about 2% iron (see column 9, lines 25 and 36-39).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Art Unit: 1754

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ward '575.

Regarding claim 2, Ward '575 discloses potassium.

Ward fails to disclose 0.5-0.1% as ions in exchange position.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use 0.5-0.1% as ions in exchange position of the potassium of Ward because Ward '575 discloses it is preferable to replace most or all of the zeolitic sodium and/or potassium with other cations (see column 6, lines 12-18), which would motivate the ordinary artisan to replace potassium to values approaching zero at least including 0.5-0.1%.

8. Claims 2-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farnos '147.

Regarding claims 2-3 and 5-6, Farnos '147 discloses a catalyst for reduction of NO<sub>x</sub>, including nitrous oxide (abstract and column 1, lines 33-35) comprising ferrierite, zeolite (see column 6, lines 58-63), potassium (column 10, lines 6-9), and about 2% iron (see column 9, lines 25 and 36-39) and further comprising silica binder, ferrierite zeolite, and 20-90% zeolite (see column 6, lines 58-63 and column 9, lines 1-4) and 1-20%

Art Unit: 1754

binder (see column 5, lines 56-65), extruding, heating, drying, and calcination (see Examples).

Farnos '147 fails to disclose agglomeration of a agglomerate.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to agglomerate an agglomeration with the binder of Farnos because Farnos discloses the binder to prepare a formable, extrudable mass so as to control the moisture content, which would motivate the ordinary artisan to agglomerate an agglomeration to produce formability, extrudability, and moisture, as disclosed.

Regarding claims 4-7, 13-14, and 18, Farnos '147 discloses silica and alumina binder (see column 5, lines 33-39).

Regarding claims 8-9, Farnos '147 discloses ferrous and ferric oxide (see column 9, lines 57-59).

Regarding claims 10-11, Farnos '147 discloses ammonium ion exchange (see column 9, lines 5-12).

Regarding claims 12 and 16-17, Farnos '147 discloses about 2% iron (see column 9, lines 25 and 36-39).

Regarding claims 15 and 19, Farnos '147 discloses calcining at 260-925 or 600 degrees Celsius (see Examples and column 10, lines 10-19).

Regarding claim 20, Farnos '147 discloses kaolinite clays (see column 5, lines 14-20).

**Conclusion**

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Speronello et al. US 5,516,497 discloses a zeolite catalyst for reduction of nitrogen oxides comprising iron and promoter on ferrierite zeolite (see abstract and Examples).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M. Johnson whose telephone number is 571-272-1352. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1754

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Edward M. Johnson  
Primary Examiner  
Art Unit 1754

EMJ